

The Examiner stated that it is unclear what the intended limitation of “agricultural chemical technical product” is. Without conceding the correctness of the Examiner’s position or the need for amendment, claims 1, 4, 6, 8 and 11 have amended the term “agricultural chemical technical product” to the term “agricultural chemical compound”. Applicants respectfully request reconsideration and withdrawal of this rejection.

Claim 7 stands rejected as indefinite. The Examiner stated that it is unclear whether the granule comprises either formaldehyde condensates of aromatic sulfonates or lignosulfonates; or whether the granule comprises both formaldehyde condensates of aromatic sulfonates and lignosulfonates, and suggested using Markush language for claim 7. In response, the applicant has amended claim 7 using Markush language as suggested by the Examiner. Applicants respectfully request reconsideration and withdrawal of this rejection.

Claim 11 stands rejected as indefinite. Regarding claim 11, the Examiner contends that there is insufficient antecedent basis for the limitation “the formaldehyde condensates of aromatic sulfonates, the lignosulfonates”. Without conceding the correctness of the Examiner’s position or the need for amendment, the applicant has deleted this limitation from claim 11 without prejudice. Applicants respectfully request reconsideration and withdrawal of this rejection.

The Examiner stated that it appears that claim 11 lacks antecedent basis for N-acyltaurate. The applicant has corrected the typographical error by amending/deleting the term "N-acyltaurate" with the term "N-acylmethyltaurate". Applicants respectfully request reconsideration and withdrawal of this rejection.

IV. Rejection of Claims under 35 U.S.C. § 103(a)

Claims 1 to 5 stand rejected as being obvious over Schrof et al. (U.S. Patent Application Publication No. 2004/0266626, "Schröf") in view of Becher et al. (U.S. Patent No. 6,908,882, "Becher").

The Examiner has acknowledged Schrof does not teach the solid crop formulation containing N-acylamino acid. However, the Examiner stated that it would be obvious to combine the teachings of Schrof and Becher, and utilize an acylated amino acid or its derivatives as a surfactant together with an agricultural chemical compound and a carrier. Applicants respectfully traverse.

Becher discloses a herbicidal composition containing a glyphosate and an N-(C₁₂₋₁₈ linear acyl) derivative of an α -amino acid. Since the glyphosate has a high melting point of 184.5°C,

Becher merely discloses the combination of an agricultural compound having a high melting point and the N-(C₁₂₋₁₈ linear acyl) derivative of an α -amino acid. It is generally known that agricultural chemical compounds having a high melting point hardly cause interparticle aggregation during formulation or storage and do not require any emulsification process for formulation. Accordingly, herbicidal compositions containing an herbicidal compound having a high melting point can be prepared using a surfactant conventionally utilized for simply dispersing particles without encountering any problems in terms of disintegrability, dispersibility, or the like. In fact, Becher merely discloses the N-(C₁₂₋₁₈ linear acyl) derivative of an α -amino acid as an adjuvant for enhancing the herbicidal activity of the glyphosate.

In contrast, it is conventionally known that an agricultural chemical compound having a low melting point easily causes interparticle aggregation during formulation and storage, and therefore it is conventionally difficult to produce water dispersible granules having good disintegrability and dispersibility. In terms of the disintegrability and dispersibility of a formulation containing an agricultural chemical compound having a low melting point or softening point of 70°C or lower, the present specification demonstrates unpredictable effects of the combination of a salt of N-acylamino acid with the agricultural chemical compound having a low melting point or softening point (*see* examples and comparative examples in the present specification). That is, the combination of a salt of N-acylamino acid with an agricultural chemical compound having a low melting or softening

point significantly improves the underwater disintegrability, the suspensibility, the dispersibility, and the like. The reason for this may be that the salt of N-acylamino acid is swollen immediately after added to water, which enables separation of agglomerated particles, before surfactant actions are exhibited to disperse the particles in water. Also, in the case where the agricultural chemical compound is a liquid at room temperature, the salt of N-acylamino acid serves to perform emulsification and dispersion at the same time, although emulsification and dispersion are conventionally required to be performed in two distinct steps. In view of the above-mentioned unpredictable effects, the applicant believes that the combination of an agricultural chemical compound having a low melting or softening point of 70°C or lower and a salt of N-acylamino acid, which is defined as its specific technical feature in claim 1, would not be obvious for those skilled in the art from teachings of Schrof and Becher, and therefore claim 1 is patentable. Also, claims 2 to 5, which depend from claim 1, are accordingly patentable. Applicants contend that there is no suggestion or motivation to combine the teachings of Schrof and Becher to arrive at the present invention. The Examiner is improperly using hindsight to reconstruct the invention. Applicants respectfully request reconsideration and withdrawal of this rejection.

Claims 6 to 8 stand rejected as being obvious over Schrof in view of Becher and Ogawa (U.S. Patent No. 5,945,114, "Ogawa"). Claims 6-8 depend from claim 1. In view of the above arguments, claim 1 is patentable over Schrof and Becher; and, therefore, claims 6-8 are patentable over these references. Reconsideration and withdrawal is respectfully requested.

Claims 9 to 11 stand rejected as being obvious over Schrof in view of Becher and Alt (U.S. Patent No. 4,600,433). Claims 9-11 depend from claim 1. In view of the above arguments, claim 1 is patentable over Schrof and Becher; and, therefore, claims 9-11 are patentable over these references. Reconsideration and withdrawal is respectfully requested.

CONCLUSION

In view of the foregoing amendments and remarks, applicant believes the pending application is in condition for allowance, and earnestly solicits same.

Should fees in addition to those transmitted herewith be required for this filing, the Commissioner is hereby authorized and requested to charge any such fees, or refund any excess in fees, to Darby and Darby Deposit Account No. 04-0100.

Dated: January 17, 2008

Respectfully submitted,

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